

ABSTRACT

Title: "POSITIVE WORKING THERMAL IMAGING ASSEMBLY OR STRUCTURE,
METHOD FOR THE MANUFACTURE THEREOF AND PRODUCTS USED AS
LITHOGRAPHIC 10 PRINTING PLATES AND THE LIKE"

The invention relates to Positive A positive working thermal imaging assembly comprising: A) a substrate; and B) a thermally sensitive imaging element of a composite layer structure comprising: (I) a first layer on the substrate of a polymeric material soluble in aqueous alkali solution, optionally containing compounds that absorb and convert light to heat and/or a coloured dye or pigment; said first layer being converted at its surface by treatment with solutions at elevated temperatures that contain an active compound or compounds capable of rendering said first polymeric material insoluble to less soluble in an aqueous alkali developer at the point of contact; the first layer being oleophilic; (ii) optionally, a first intermediate layer between the substrate and the said first layer with a second polymeric material which is soluble or dispersible in aqueous solution optionally containing compounds that absorb and convert light or radiation to heat and/or a coloured dye or pigment coated from a solvent that does not substantially dissolve the first layer; and (iii) optionally, a third or top layer over the converted first layer and composed of a second polymeric material which is soluble or dispersible in aqueous solution optionally containing compounds that absorb and convert light or radiation to heat and/or a visible coloured dye or pigment; the first intermediate layer and the third layer being applied with a solvent that does not substantially dissolve the converted first layer.

The assembly is useful as off-set lithographic printing plates, for color proofing films and photoresist. The invention also refers to the process for making such assembly and products formed therefrom.